5

10

ABSTRACT

The invention features methods of producing an antibody in the milk of a transgenic mammal. The methods include providing a transgenic mammal whose somatic and germ cells comprise a sequence encoding an exogenous heavy chain variable region or antigen binding fragment thereof, at least one heavy chain constant region, or a fragment thereof, and a hinge region, operably linked to a promoter which directs expression in mammary epithelial cells, wherein said hinge region has been altered from the hinge region normally associated with the heavy chain constant region. The invention also features transgenic mammals, methods of producing these mammals, compositions comprising such antibodies, and nucleic acids encoding the antibodies.